Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-6 (Canceled)

7. (Currently Amended) A method of specifically inhibiting fusion of a CD4+ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1 to an envelope of a macrophage-tropic primary isolate of HIV-1 which comprises contacting the CD4+ cell with an agent which is (1) ~~capable of inhibiting~~ inhibits fusion of HeLa-env_{JR-FL} to a PM1 cell, but (2) ~~not capable of inhibiting~~ does not inhibit fusion of HeLa-env_{LAI} to a HeLa-CD4+ cell, wherein the agent inhibits fusion of the CD4+ cell to the envelope of the macrophage-tropic primary isolate of HIV-1.

8. (Currently Amended) The method of claim 7, wherein the agent is determined to ~~be capable of inhibiting~~ inhibit fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell but not ~~capable of inhibiting~~ to inhibit fusion of a T cell tropic isolate of HIV-1 to a CD4+ cell using a method which comprises:

(a) contacting (i) a PM1 cell, which is labeled with a first dye, with (ii) HeLa-env_{JR-FL}, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the PM1 cell to the HeLa-env_{JR-FL} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and

(c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;

(d) contacting (i) a HeLa-CD4+ cell, which is labeled with a first dye, with (ii) HeLa-env_{LAI} which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of HeLa-CD4+ to the HeLa-env_{LAI} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(e) exposing the product of step (d) to conditions that would result in resonance energy transfer if fusion has occurred;

(f) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent; and

(g) comparing the determination made in step (c) with the determination made in step (f), wherein a decrease in transfer in step (c) but not in step (f) indicates that the agent ~~is capable of~~ specifically inhibits ~~inhibiting~~ fusion of the macrophage-tropic primary isolate of HIV-1 to the CD4+ cell, but does not ~~capable of~~ specifically inhibit ~~inhibiting~~ the fusion of a T cell-tropic isolate of HIV-1 to the CD4+ cell.

9. (Previously Presented) The method of claim 7, wherein the agent is an antibody.

10-12. (Canceled)

13. (Currently Amended) The method of claim 7, wherein the agent inhibits ~~is capable of inhibiting~~ fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4+ cell but does not inhibit ~~capable of inhibiting~~ fusion of a T cell-tropic isolate of HIV-1 to a CD4+ cell in a method which comprises:

(a) contacting (i) a PM1 cell, which is labeled with a first dye, with (ii) HeLa-env_{JR-FL}, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the PM1 cell to the HeLa-env_{JR-FL} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and

(c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;

(d) contacting (i) a HeLa-CD4+ cell, which is labeled with a first dye, with (ii) HeLa-env_{LAI}, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of HeLa-CD4+ to the HeLa-env_{LAI} in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;

(e) exposing the product of step (d) to conditions that would result in resonance energy transfer if fusion has occurred;

(f) determining whether there is a reduction in resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent; and

(g) comparing the determination made in step (c) with the determination made in step (f), wherein a decrease in transfer in step (c) but not in step (f) indicates that the agent ~~is capable of~~ specifically inhibits ~~inhibiting~~ fusion of the macrophage-tropic primary isolate of HIV-1 to the CD4+ cell, but does not ~~capable of~~ specifically inhibit ~~inhibiting~~ the fusion of a T cell-tropic isolate of HIV-1 to the CD4+ cell.

14. (Previously Presented) The method of claim 7, wherein the agent is a protein moiety.

15. (Previously Presented) The method of claim 14, wherein the protein moiety is an antibody.

16. (Previously Presented) The method of claim 15, wherein the antibody is an antibody is a monoclonal antibody.

17. (Previously Presented) The method of claim 15, wherein the antibody is a wholly synthetic antibody or a chimeric antibody.

18. (Previously Presented) The method of any of claims 15-17, wherein the antibody is an antigen-binding fragment of an antibody.

19. (Previously Presented) The method of claim 14, wherein the protein moiety is a β-chemokine.

20. (Currently Amended) A method of specifically inhibiting fusion of a CD4+ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1 to an envelope of a macrophage-tropic primary isolate of HIV-1 which comprises contacting the CD4+ cell with a protein moiety

which is (1) ~~capable of inhibiting~~ inhibits fusion of HeLa-env_{JR-FL} to a PM1 cell, but (2) ~~not capable of inhibiting~~ does not inhibit fusion of HeLa-env_{LAI} to a HeLa-CD4+ cell, wherein the protein moiety inhibits fusion of the CD4+ cell to the envelope of the macrophage-tropic primary isolate of HIV-1.

21. (Previously Presented) The method of claim 20, wherein the protein moiety is an antibody.

22. (Previously Presented) The method of claim 21, wherein the antibody is a monoclonal antibody.

23. (Previously Presented) The method of claim 21, wherein the antibody is a wholly synthetic antibody or a chimeric antibody.

24. (Previously Presented) The method of any of claims 21-23, wherein the antibody is an antigen-binding fragment of an antibody.

25. (Previously Presented) The method of claim 20, wherein the protein moiety is a β-chemokine.